

In the Claims

CLAIMSWhat is claimed is:

1. (Currently Amended) A pneumatic Pneumatic
5 servomotor for an assisted braking, comprising a casing
(2) having a longitudinal axis (X) and in which a low-
pressure chamber (10) and a variable-pressure chamber
(8) are defined, in an airtight manner, by a moving
partition wall (12) bearing a pneumatic piston (18) in
10 its middle part, a three-way valve (20), arranged at
the rear part of the pneumatic piston (18) and
controlled by an actuating rod (27), the three-way
valve comprising a first valve (22) for a re-
equalization between the low-pressure chamber (10) and
15 the variable-pressure chamber (8), and a second valve
(24) for the high-pressure supply of the variable-
pressure chamber (8), said supply valve (24) comprising
a valve seat, borne by a first longitudinal end of a
distributor plunger (28) and receiving a longitudinal
20 end of the actuating rod (27), said distributor plunger
(28) having, at a second longitudinal in the opposite
direction relative to the first longitudinal end, a
finger (30), which is perpendicular to the longitudinal
axis (X) and which comes into contact with a face of a
25 reaction disk (32) on a braking operation, said
reaction disk (32) being accommodated in a housing (34)
integral with a push rod (36) for the actuation of a
master cylinder, said housing (34) comprising a
pneumatic braking-assistance device (D) fitted with a
30 cage (38), a first closed longitudinal end of which is
integral with the push rod (36) while its second open
longitudinal end is closable by an annular ring (44)
integral with the cage (38) and by a reaction piston
(42) fitted for a sliding travel inside the ring (44)
35 along the longitudinal axis (X), said reaction piston

(42) being reactionnally kept against the ring (44) by a resilient means (40) having a prestress (ch) and bearing by its rear end on the closed first end of the cage (38), and wherein ~~the an~~ area consisting of the 5 rear faces (50, 52) of the annular ring (44) and of the reaction piston (42), respectively, constitutes ~~the a~~ front longitudinal end of the housing (34) of the reaction disk, characterised in that said device comprises plastically-deformable means (68, 74) for the 10 adjustment of the braking characteristics.

2. (Currently Amended) The pneumatic servomotor Servomotor according to claim 1, characterised in that the resilient means (40) is a helical spring.

3. (Currently Amended) The pneumatic servomotor Servomotor according to claim 1 ~~or claim 2~~, characterised in that the first means (68) are capable of setting a predetermined value (Vj) to a clearance (j) between the planes containing the rear faces (52, 50) of the reaction piston (42) and of the annular ring (44), respectively. 15 20

4. (Currently Amended) The pneumatic servomotor Servomotor according to ~~the preceding~~ claim 3, characterised in that the first means (68) are disposed between a front face (66) of the annular ring (44) and a rear face (62) of a flange (60) extending radially outwards from the periphery of the body of the reaction piston (42). 25

5. (Currently Amended) The pneumatic servomotor Servomotor according to ~~the preceding~~ claim 4, characterised in that said first means (68) consist of a collar. 30

6. (Currently Amended) The pneumatic servomotor Servomotor according to claim 4, characterised in that said first means (68) consist of a ring-shaped protrusion, made in one piece with the annular ring 35

(44) and extending axially forwards from the front face (66) of the annular ring.

5 7. (Currently Amended) The pneumatic servomotor
Servometer according to claim 4, characterised in that
said first means (68) consist of a ring-shaped
protrusion, made in one piece with the flange (60) and
extending axially rearwards from the rear face (62) of
the flange (60).

10 8. (Currently Amended) The pneumatic servomotor
Servometer according to claim 7 ~~any one of the~~
~~preceding claims~~, characterised in that the second
means (74) are capable of setting a predetermined value
(Vch) to the stressing (ch) of the resilient means
(40).

15 9. (Currently Amended) The pneumatic servomotor
Servometer according to ~~the preceding~~ claim 8,
characterised in that the second means (74) are
accommodated inside the emergency-braking assistance
device (D) so as to modify the axial position of the
20 closed first end of the cage (38) relative to the
reaction piston (42).

25 10. (Currently Amended) The pneumatic servomotor
Servometer according to ~~the preceding~~ claim 9,
characterised in that the second means (74) consist of
a collar, disposed between the front face (66) of the
annular ring (44) and the rear face of an inner bearing
surface (47) of the cage (38).

30 11. (Currently Amended) The pneumatic servomotor
Servometer according to claim 9, characterised in that
the second means (74) consist of a ring-shaped
protrusion, made in one piece with the annular ring
(44) and extending axially from the front face (66) of
the annular ring towards an inner bearing surface (47)
of the cage (38).

35 12. (Currently Amended) The pneumatic servomotor

Servometer according to claim 9, characterised in that the cage (38) comprises a sleeve (381), which is closed at its first front longitudinal end (383) by a cap (382) integral with the push rod (36), and in that the 5 second means (74) are disposed between the front longitudinal end of the sleeve (381) and a rear face of the cap (382).

13. (Currently Amended) The pneumatic servomotor Servometer according to the preceding claim 12, 10 characterised in that the second means (74) consist of a ring-shaped protrusion, made in one piece with the sleeve (381) and extending axially towards the cap (382).

14. (Currently Amended) The pneumatic servomotor Servometer according to claim 12 or claim 13, 15 characterised in that said cap (382) is interlocked with the sleeve (381) by means of a ring-shaped extension, which is arranged radially outside relative to the ring-shaped protrusion constituting the second 20 means (74), and capable of folding over onto the front face of the cap (382) owing to a plastic deformation.

15. (Currently Amended) A manufacturing 25 Manufacturing process for a pneumatic servomotor for an assisted braking, fitted with an emergency-braking assistance device according to any one of the preceding claims, characterised in that it comprises, among other features including the following step:

- a preliminary step, in which the first means (68) are plastically deformed in an axial 30 direction so as to set a predetermined value (V_j) to the clearance (j) between the rear faces (52, 50) of the a reaction piston (42) and of the an annular ring (44), respectively;
- a subsequent step, in which the a second means (74) are plastically deformed in an axial 35

direction so as to set a predetermined value (Vch) to the stressing (ch) of the a resilient means (40).

16. (Currently Amended) The manufacturing process
5 wherein a device Device for the implementation of the preliminary step of the process according to the preceding in claim 15, characterised in that it comprises a first element (202) and a second element (204), movable relative to the first element (202)
10 along the longitudinal axis (X), said first element (202) having a reference surface, which defines the predetermined value (Vj) of the clearance (j), while the second element (204) comprises a ring-shaped pressing surface, which cooperates with the front face
15 (64) of the flange (60) of the reaction piston (42).

17. (Currently Amended) The manufacturing process
Device for the implementation of the subsequent step of the process according to in claim 15 16, characterised in that it comprises a third element (302) and a fourth element (304), movable relative to the third element (302) along the longitudinal axis (X), said third element having a ring-shaped supporting surface for the front face (66) of the annular ring, and a means (307) for the detection of the force applied to the reaction
20 piston (42) by the resilient means (40), while the fourth element (304) comprises a surface for a force application to the cage (38), so as to deform the second means (74) plastically in the course of an axial travel of the fourth element (304) towards the third
25 element (302), in such a way that the stressing of the resilient means (40) is equal to the predetermined value (Vch).